Claim 7

An improved copper chromite catalyst having the molar composition

$$Cu_{(a)}Cr_{(b)}Al_{(c)}Zn_{(d)}$$

wherein

$$a = 10 - 40 \text{ mole } \%$$

$$b = 10 - 40 \text{ mole } \%$$

$$c = 10 - 30 \text{ mole } \%$$

$$d = 5 - 40 \text{ mole } \%$$

and
$$a + b + c + d = 100$$

and having an XRD pattern as shown in Table I

Table XRD analysis of the copper chromite catalyst

θ	Intensity (%)
\18	100
26.2	100
27\4	48
35.8	92
56.6	48
56.6	44

Claim 8

A process for the preparation of a copper chromite catalyst having the molar

composition

$$Cu_{(a)}Cr_{(b)}Al_{(c)}Zn_{(d)}$$

wherein

$$a = 10 - 40 \text{ mole } \%$$

$$b = 10 - 40 \text{ mole } \%$$

$$c = 10 - 30 \text{ mole } \%$$

$$d = 5 - 40 \text{ mole } \%$$

and
$$a + b + c + d = 100$$

and having an XRD pattern as shown in Table I

Table I: XRD analysis of the copper chromite catalyst

θ	Intensity (%)
18	100
26.2	100
27.4	48
35.8	92
44.2	48
56.6	44

said process comprising the steps of:

- (a) preparing an aqueous solution comprising a source of copper, a source of aluminum and a source of zinc;
- (b) adding to the aqueous solution of step (a) a source of chromium while stirring to form a precipitate;
- (c) recovering the precipitate and drying the precipitate at a temperature between 200 500°C for a period between 2 5 hours to obtain the catalyst.

Claim A process as claimed in claim wherein the source of copper is a copper salt selected from the group consisting of copper nitrate, copper sulfate, copper acetate and copper chloride.

Claim 10 A process as claimed in claim 8 wherein the source of aluminum is an aluminum